



## RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: US/10/731,642  
Source: PCT  
Date Processed by STIC: 12/30/03

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Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<<http://www.uspto.gov/ebc/efs/downloads/documents.htm>> , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
3. Hand Carry directly to (EFFECTIVE 12/01/03):  
U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202
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Revised 10/08/03



PCT

## RAW SEQUENCE LISTING

DATE: 12/30/2003

PATENT APPLICATION: US/10/731,642

TIME: 11:57:35

Input Set : A:\PTO.FG.txt

Output Set: N:\CRF4\12302003\J731642.raw

3 <110> APPLICANT: MENE-SAFFRANE, Laurent  
 4 ESQUERRE-TUGAYE, Marie-Therese  
 5 FOURNIER, Joelle  
 6 BEFFA, Roland  
 7 GROSJEAN-COURNOYER Marie-Claire  
 9 <120> TITLE OF INVENTION: LIPOXYGENASE OVEREXPRESSION IN PLANTS  
 10 AND REDUCTION IN PLANT SENSITIVITY TO  
 11 DISEASES AND TO ATTACKS FROM PATHOGENIC  
 12 ORGANISMS  
 14 <130> FILE REFERENCE: A36097-PCT-USA-A 072667.0192  
 C--> 16 <140> CURRENT APPLICATION NUMBER: US/10/731,642  
 C--> 17 <141> CURRENT FILING DATE: 2003-12-08  
 19 <150> PRIOR APPLICATION NUMBER: PCT/FR02/01943  
 20 <151> PRIOR FILING DATE: 2002-06-06  
 W--> 22 French Patent Application No. filed June 7, 2001 and French Patent Application  
 W--> 23 No. FR 01/14358 filed November 7, 2001  
 25 <150> PRIOR APPLICATION NUMBER: FR 01/07470  
 26 <151> PRIOR FILING DATE: 2001-06-07  
 28 <150> PRIOR APPLICATION NUMBER: FR 01/14358  
 29 <151> PRIOR FILING DATE: 2001-11-07  
 31 <160> NUMBER OF SEQ ID NOS: 6  
 33 <170> SOFTWARE: Custom  
 35 <210> SEQ ID NO: 1  
 36 <211> LENGTH: 862  
 37 <212> TYPE: PRT  
 38 <213> ORGANISM: Nicotiana tabacum  
 40 <300> PUBLICATION INFORMATION:  
 41 <308> DATABASE ACCESSION NO: X84040  
 W--> 43 <300> PUBLICATION INFORMATION: 1  
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 45 1 5 10 15  
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 48 20 25 30  
 50 Phe Thr Asp Ile Asn Ala Ser Val Leu Asp Gly Val Leu Glu Phe Leu  
 51 35 40 45  
 53 Gly Arg Arg Val Ser Leu Glu Leu Ile Ser Ser Val Asn Ala Asp Pro  
 54 50 55 60  
 56 Ala Asn Gly Leu Gln Gly Lys Arg Ser Lys Ala Ala Tyr Leu Glu Asn  
 57 65 70 75 80  
 59 Trp Leu Thr Asn Ser Thr Pro Ile Ala Ala Gly Glu Ser Ala Phe Arg  
 60 85 90 95  
 62 Val Thr Phe Asp Trp Asp Asp Glu Glu Phe Gly Val Pro Gly Ala Phe  
 63 100 105 110

Does Not Comply  
 Corrected Diskette Needed  
 (pg.1, 4)  
 delete  
 Mandatory, if <308> is shown  
 then <309> must be inserted  
 with a response.

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Input Set : A:\PTO.FG.txt

Output Set: N:\CRF4\12302003\J731642.raw

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65 Ile Ile Lys Asn Leu His Phe Ser Glu Phe Phe Leu Lys Ser Leu Thr
66      115      120      125
68 Leu Glu Asp Val Pro Asn His Gly Lys Val His Phe Val Cys Asn Ser
69      130      135      140
71 Trp Val Tyr Pro Ala Asn Lys Tyr Lys Ser Asp Arg Ile Phe Phe Ala
72 145      150      155      160
74 Asn Gln Ala Tyr Leu Pro Ser Glu Thr Pro Asp Thr Leu Arg Lys Tyr
75      165      170      175
77 Arg Glu Asn Glu Leu Val Thr Leu Arg Gly Asp Gly Thr Gly Lys Leu
78      180      185      190
80 Glu Glu Trp Asp Arg Val Tyr Asp Tyr Ala Tyr Tyr Asn Asp Leu Gly
81      195      200      205
83 Asp Pro Asp Lys Gly Gln Asp Leu Ser Arg Pro Val Leu Gly Gly Ser
84      210      215      220
86 Ser Glu Tyr Pro Tyr Pro Arg Arg Gly Arg Thr Gly Arg Lys Pro Thr
87 225      230      235      240
89 Lys Thr Asp Pro Asn Ser Glu Ser Arg Ile Pro Leu Leu Met Ser Leu
90      245      250      255
92 Asp Ile Tyr Val Pro Arg Asp Glu Arg Phe Gly His Ile Lys Leu Ser
93      260      265      270
95 Asp Phe Leu Thr Phe Ala Leu Lys Ser Ile Val Gln Leu Leu Leu Pro
96      275      280      285
98 Glu Phe Lys Ala Leu Phe Asp Ser Thr His Asn Glu Phe Asp Ser Phe
99      290      295      300
101 Glu Asp Val Leu Lys Leu Tyr Glu Gly Gly Ile Lys Leu Pro Gln Gly
102 305      310      315      320
104 Pro Leu Leu Lys Ala Ile Thr Asp Ser Ile Pro Leu Glu Ile Leu Lys
105      325      330      335
107 Glu Leu Leu Arg Ser Asp Gly Glu Gly Leu Phe Lys Tyr Pro Thr Pro
108      340      345      350
110 Gln Val Ile Gln Glu Asp Lys Thr Ala Trp Arg Thr Asp Glu Glu Phe
111      355      360      365
113 Gly Arg Glu Met Leu Ala Gly Val Asn Pro Val Ile Ile Ser Arg Leu
114      370      375      380
116 Gln Glu Phe Pro Pro Lys Ser Lys Leu Asp Pro Lys Ile Tyr Gly Asn
117 385      390      395      400
119 Gln Asn Ser Thr Ile Thr Arg Glu Gln Ile Glu Asp Lys Leu Asp Gly
120      405      410      415
122 Leu Thr Ile Asp Glu Ala Ile Lys Thr Asn Arg Leu Phe Ile Leu Asn
123      420      425      430
125 His His Asp Ile Leu Met Pro Tyr Leu Arg Arg Ile Asn Thr Ser Thr
126      435      440      445
128 Asp Thr Lys Thr Tyr Ala Ser Arg Thr Leu Leu Phe Leu Gln Asp Asn
129      450      455      460
131 Gly Thr Leu Lys Pro Ser Ala Ile Glu Leu Ser Leu Pro His Pro Asp
132 465      470      475      480
134 Gly Asp Gln Phe Gly Ala Val Ser Lys Val Tyr Thr Pro Ala Asp Gln
135      485      490      495
137 Gly Val Glu Gly Ser Ile Trp Gln Leu Ala Lys Ala Tyr Ala Ala Val

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140 Asn Asp Ser Gly Val His Gln Leu Ile Ser His Trp Leu Asn Thr His
141          515          520          525
143 Ala Ala Ile Glu Pro Phe Val Ile Ala Thr Asn Arg Gln Leu Ser Ala
144          530          535          540
146 Leu His Pro Ile Tyr Lys Leu Leu His Pro His Phe Arg Glu Thr Met
147 545          550          555          560
149 Asn Ile Asn Ala Leu Ala Arg Gln Ile Leu Ile Asn Gly Gly Gly Leu
150          565          570          575
152 Leu Glu Leu Thr Val Phe Pro Ala Lys Tyr Ser Met Glu Met Ser Ala
153          580          585          590
155 Val Val Tyr Lys Asp Trp Val Phe Pro Glu Gln Ala Leu Pro Thr Asp
156          595          600          605
158 Leu Ile Lys Arg Gly Val Ala Val Glu Asp Ser Ser Ser Pro Leu Gly
159          610          615          620
161 Ile Arg Leu Leu Ile Gln Asp Tyr Pro Tyr Ala Val Asp Gly Leu Lys
162 625          630          635          640
164 Ile Trp Ser Ala Ile Lys Ser Trp Val Thr Glu Tyr Cys Asn Tyr Tyr
165          645          650          655
167 Tyr Lys Ser Asp Asp Ala Val Gln Lys Asp Thr Glu Leu Gln Ala Trp
168          660          665          670
170 Trp Lys Glu Leu Arg Glu Glu Gly His Gly Asp Lys Lys Asp Glu Pro
171          675          680          685
173 Trp Trp Pro Lys Met Gln Thr Val Gln Glu Leu Ile Asp Ser Cys Thr
174          690          695          700
176 Ile Thr Ile Trp Ile Ala Ser Ala Leu His Ala Ala Val Asn Phe Gly
177 705          710          715          720
179 Gln Tyr Pro Tyr Ala Gly Tyr Leu Pro Asn Arg Pro Thr Leu Ser Arg
180          725          730          735
182 Asn Phe Met Pro Glu Pro Gly Ser Pro Glu Tyr Glu Glu Leu Lys Thr
183          740          745          750
185 Asn Pro Asp Lys Val Phe Leu Lys Thr Ile Thr Pro Gln Leu Gln Thr
186          755          760          765
188 Leu Leu Gly Ile Ser Leu Ile Glu Ile Leu Ser Arg His Ser Ser Asp
189          770          775          780
191 Thr Leu Tyr Leu Gly Gln Arg Glu Ser Pro Glu Trp Thr Lys Asp Gln
192 785          790          795          800
194 Glu Pro Leu Ser Ala Phe Ala Arg Phe Gly Lys Lys Leu Ser Asp Ile
195          805          810          815
197 Glu Asp Gln Ile Met Gln Met Asn Val Asp Glu Lys Trp Lys Asn Arg
198          820          825          830
200 Ser Gly Pro Val Lys Val Pro Tyr Thr Leu Leu Phe Pro Thr Ser Glu
201          835          840          845
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204          850          855          860
207 <210> SEQ ID NO: 2
208 <211> LENGTH: 3390
209 <212> TYPE: DNA
210 <213> ORGANISM: Artificial sequence

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Input Set : A:\PTO.FG.txt

Output Set: N:\CRF4\12302003\J731642.raw

212 <220> FEATURE:  
 213 <223> OTHER INFORMATION: Artificial sequence description: *delete*  
 214 construct CamV 35S-LOX  
 216 <220> FEATURE:  
 217 <221> NAME/KEY: promoter  
 218 <222> LOCATION: (1)..(532)  
 219 <223> OTHER INFORMATION: CamV 35S promoter  
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 222 <221> NAME/KEY: CDS  
 223 <222> LOCATION: (543)..(3131)  
 224 <223> OTHER INFORMATION: Tobacco LOX1 coding sequence  
 226 <220> FEATURE:  
 227 <221> NAME/KEY: terminator  
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 229 <223> OTHER INFORMATION: Nos terminator  
 231 <400> SEQUENCE: 2  
 232 ccatggagtc aaagattcaa atagaggacc taacagaact cgccgtaaag actggcgaac 60  
 234 agttcataca gagtctctta cgactcaatg acaagaagaa aatcttcgtc aacatgggtg 120  
 236 agcacgacac gcttgtctac tccaaaaata tcaaagatac agtctcagaa gaccaaagg 180  
 238 caattgagac ttttcaacaa agggtaatat ccggaaacct cctcggattc cattgcccag 240  
 240 ctatctgtca ctttattgtg aagatagtgg aaaaggaagg tggctcctac aaatgccatc 300  
 242 attgcgataa aggaaaggcc atcgttgaag atgcctctgc cgacagtggc cccaagatg 360  
 244 gacccccacc caccaggagc atcgttgaaa aagaagacct tccaaccacg tcttcaaagc 420  
 246 aagtggattg atgtgatatc tccactgacg taagggatga cgcacaatcc cactatcctt 480  
 248 cgcaagaccc ttcctcctat aaggaagttc atttcatttg gagaggacac gcggtaccca 540  
 250 aa atg ttt ctg gag aag att gtg gat gca atc aca ggg aaa gat gat 587  
 251 Met Phe Leu Glu Lys Ile Val Asp Ala Ile Thr Gly Lys Asp Asp  
 252 1 5 10 15  
 254 gga aaa aag gta aaa gga aca gtg gtt ttg atg aag aaa aat gtt ttg 635  
 255 Gly Lys Lys Val Lys Gly Thr Val Val Leu Met Lys Lys Asn Val Leu  
 256 20 25 30  
 258 gat ttt act gat att aat gcc tca gtt ctt gat gga gtt ctt gag ttc 683  
 259 Asp Phe Thr Asp Ile Asn Ala Ser Val Leu Asp Gly Val Leu Glu Phe  
 260 35 40 45  
 262 ctt ggt cgg agg gtc tct ctc gag ttg atc agt tct gtt aat gct gat 731  
 263 Leu Gly Arg Arg Val Ser Leu Glu Leu Ile Ser Ser Val Asn Ala Asp  
 264 50 55 60  
 266 cct gca aat ggt tta caa ggg aaa cgc agc aaa gca gca tat ttg gag 779  
 267 Pro Ala Asn Gly Leu Gln Gly Lys Arg Ser Lys Ala Ala Tyr Leu Glu  
 268 65 70 75  
 270 aac tgg cta aca aat agc acc cca ata gca gca ggt gaa tca gca ttt 827  
 271 Asn Trp Leu Thr Asn Ser Thr Pro Ile Ala Ala Gly Glu Ser Ala Phe  
 272 80 85 90 95  
 274 aga gtc aca ttt gat tgg gat gat gag gaa ttt gga gtt cca gga gca 875  
 275 Arg Val Thr Phe Asp Trp Asp Asp Glu Glu Phe Gly Val Pro Gly Ala  
 276 100 105 110  
 278 ttc att atc aag aac ttg cat ttt agt gag ttc ttc ctc aag tca ctc 923  
 279 Phe Ile Ile Lys Asn Leu His Phe Ser Glu Phe Phe Leu Lys Ser Leu  
 280 115 120 125

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286 tct tgg gtt tat cct gct aat aaa tat aag tca gat cgc atc ttc ttc 1019
287 Ser Trp Val Tyr Pro Ala Asn Lys Tyr Lys Ser Asp Arg Ile Phe Phe
288      145      150      155
290 gcg aat cag gct tat cta cca agt gaa aca cca gac aca ttg cga aaa 1067
291 Ala Asn Gln Ala Tyr Leu Pro Ser Glu Thr Pro Asp Thr Leu Arg Lys
292 160      165      170      175
294 tac aga gaa aat gaa tta gta acc tta aga gga gat gga act gga aag 1115
295 Tyr Arg Glu Asn Glu Leu Val Thr Leu Arg Gly Asp Gly Thr Gly Lys
296      180      185      190
298 ctt gag gaa tgg gat aga gtt tat gac tat gct tac tac aat gac ttg 1163
299 Leu Glu Glu Trp Asp Arg Val Tyr Asp Tyr Ala Tyr Tyr Asn Asp Leu
300      195      200      205
302 ggt gat cca gac aaa ggc caa gat ttg tca agg cct gtc tta gga gga 1211
303 Gly Asp Pro Asp Lys Gly Gln Asp Leu Ser Arg Pro Val Leu Gly Gly
304      210      215      220
306 tct tct gag tac ccg tat cct cgt aga ggc agg aca ggc cgc aaa cca 1259
307 Ser Ser Glu Tyr Pro Tyr Pro Arg Arg Gly Arg Thr Gly Arg Lys Pro
308      225      230      235
310 acc aaa aca gat cct aat tcc gag agc agg att cca ttg ctt atg agc 1307
311 Thr Lys Thr Asp Pro Asn Ser Glu Ser Arg Ile Pro Leu Leu Met Ser
312 240      245      250      255
314 tta gac ata tat gtg cca agg gac gag cga ttt ggt cat ata aag ttg 1355
315 Leu Asp Ile Tyr Val Pro Arg Asp Glu Arg Phe Gly His Ile Lys Leu
316      260      265      270
318 tca gac ttc ttg aca ttt gct ttg aaa tcc att gtg cag ttg ctt ctc 1403
319 Ser Asp Phe Leu Thr Phe Ala Leu Lys Ser Ile Val Gln Leu Leu Leu
320      275      280      285
322 cct gag ttt aag gct ttg ttc gat agc acg cat aat gag ttt gat agt 1451
323 Pro Glu Phe Lys Ala Leu Phe Asp Ser Thr His Asn Glu Phe Asp Ser
324      290      295      300
326 ttt gag gat gta ctt aaa ctg tat gaa gga gga atc aag ttg cct caa 1499
327 Phe Glu Asp Val Leu Lys Leu Tyr Glu Gly Gly Ile Lys Leu Pro Gln
328      305      310      315
330 ggc cct ttg ttg aaa gcc att act gat agc att cct tta gag ata cta 1547
331 Gly Pro Leu Leu Lys Ala Ile Thr Asp Ser Ile Pro Leu Glu Ile Leu
332 320      325      330      335
334 aaa gaa ctc ctt cga agt gat ggt gaa ggc cta ttt aag tac cca act 1595
335 Lys Glu Leu Leu Arg Ser Asp Gly Glu Gly Leu Phe Lys Tyr Pro Thr
336      340      345      350
338 cct cag gtt att caa gag gat aaa act gca tgg agg acg gat gaa gaa 1643
339 Pro Gln Val Ile Gln Glu Asp Lys Thr Ala Trp Arg Thr Asp Glu Glu
340      355      360      365
342 ttt ggg aga gaa atg ttg gcg gga gtc aat cct gtc ata atc agt aga 1691
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344      370      375      380
346 ctc caa gaa ttc cct ccg aaa agc aag ttg gat cct aaa ata tat ggc 1739

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Input Set : A:\PTO.FG.txt

Output Set: N:\CRF4\12302003\J731642.raw

Invalid Line Length:

The rules require that a line not exceed 72 characters in length. This includes spaces.

Seq#:1; Line(s) 22

**VERIFICATION SUMMARY**

PATENT APPLICATION: US/10/731,642

DATE: 12/30/2003

TIME: 11:57:36

Input Set : A:\PTO.FG.txt

Output Set: N:\CRF4\12302003\J731642.raw

L:16 M:270 C: Current Application Number differs, Replaced Application Number  
L:17 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
L:22 M:259 W: Allowed number of lines exceeded, <151> PRIOR FILING DATE:  
L:23 M:259 W: Allowed number of lines exceeded, <151> PRIOR FILING DATE:  
L:43 M:256 W: Invalid Numeric Header Field, Identifier <309> Expected, SEQ:1